

2011

$$2) \frac{(2i)^5 \cdot (i+0,5)}{4(2i+1)^2} + \frac{(4+2i^3)^2}{(i^2+2i)}$$

+2i  $\rightarrow$   $-2i^3 = -2 \cdot (-i)$

$$\frac{8 \cdot 32i \cdot (i+0,5)}{4 \cdot (-4+4i+1)} + \frac{16+16i-4}{-1+2i}$$

$$\frac{8i^2+4i}{4i-3} + \frac{12+16i}{2i-1}$$

$$\frac{4i-8}{4i-3} \cdot \frac{4i+3}{4i+3} + \frac{12+16i}{2i-1} \cdot \frac{2i+1}{2i+1}$$

$$\frac{8}{5} + \frac{20}{5} = \frac{28}{5}$$

|  
5  $3/5$

$$\frac{16i^2-37i+12i-24}{(4i)^2-3^2} + \frac{24i+12+37i^2+16i}{(2i)^2-1^2}$$

$$\frac{-40-20i}{-25} + \frac{40i-20}{-5} = \left( \frac{8}{5} + \frac{4}{5}i \right) - 8i + 4$$
$$= 5^{3/5} - 7^{1/5}i$$